



Federal Communications Commission

# International mobile roaming

an **INTUG** submission  
2 December 2004

In the matter of

the implementation of Section 6002(b) of  
the Omnibus Budget Reconciliation Act of  
1993 - Annual report and analysis of  
competitive market conditions with respect  
to commercial mobile services

WT Docket No. 04-111

*and*

International settlements policy reform and  
international settlement rates

IB Docket No. 04-398

**introduction** On 9th September 2004, the Federal Communications Commission (FCC) adopted its ninth report on competitive market conditions with respect to commercial mobile radio services.<sup>1</sup>

INTUG, the International Telecommunications Users Group, very much welcomes the publication of such reports by national regulatory authorities.<sup>2</sup> They provide invaluable inputs for policy making and are a means to make comparisons between countries.

In general terms we would not disagree with the finding of competitive market conditions for commercial mobile radio services. However, there is one area to which we would draw the attention of the FCC, it concerns the prices charged by US-based operators to their customers when they leave the USA and engage in international mobile roaming.

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<sup>1</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-04-216A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-216A1.pdf)

<sup>2</sup> <http://www.intug.net/>

On 14th October 2004, the FCC adopted a Notice of Inquiry to fulfill a commitment made the previous March in its work on the reform of International Settlement Policy (ISP).<sup>3</sup> The Commission has requested comments on the arrangements for foreign mobile termination payments and on the flows of revenues between carriers. An important aspect of those rates and of the financial flows relate to international mobile roaming. One recent estimate, by Roamware, was that the roaming market amounted to some US\$ 50 billion worldwide.<sup>4</sup> The operators appear to work to control net flows of payments, both roaming and termination.

International mobile roaming is both a great convenience and an extremely complex regulatory problem. It allows us to move from country to country, to have calls follow us and to be able to make calls with the numbers in our cellphones, without the inconvenience of having to make local arrangements.

While the retail market is in the United States of America, the wholesale markets are in foreign countries where individual bilateral deals are struck by US-based operators with local mobile network operators, generally within the framework of the Standard Terms for International Roaming Agreements (STIRA) of the GSM Association.<sup>5</sup> For the individual customer it is a matter of accepting the service offered by an existing provider, perhaps with a further option of lower prices in return for an additional monthly fee. For the corporate customer, roaming is purchased as part of an overall procurement for cellular services. In some instances customers have to rent a different type of handset in order to use a specific foreign network.

INTUG has raised the issue of the very high level of charges for international mobile roaming with the Organisation for Economic Cooperation and Development (OECD), the International Telecommunication Union (ITU) and with the Telecommunications Working Group of the Asia Pacific Economic Cooperation (APEC). All of these in the presence of officials from the Department of State and of the International Bureau of the FCC. Details of INTUG's activities on roaming charges are available on our web site.<sup>6</sup>

Faced with the accusation that international mobile roaming charges were complex, sometimes to the point of incomprehensibility, many mobile operators have "simplified" their tariffs. In doing so, they appear to have raised the price of some calls to a point that has to be considered disturbing. *Prima facie*, it indicates that competitive market pressures are absent in the retail market for international mobile roaming services. This is not intended to suggest that there may not also be problems in the wholesale markets for international mobile roaming services.

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<sup>3</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-04-216A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-216A1.pdf)

<sup>4</sup> <http://www.roamware.com/Media/20040616.aspx>

<sup>5</sup> <http://www.gsmworld.com/roaming/index.shtml>

<sup>6</sup> <http://www.intug.net/roaming>

**European inquiries**

Early in 1999 INTUG first raised concerns about possible abuses of market power in the prices charged for international mobile roaming. These data were presented to the European Commission which opened a sector inquiry under the competition law articles of the EC Treaty. That inquiry remains open at the Competition Directorate-General.<sup>7</sup>

National Regulatory Authorities (NRAs) are required under the current European Union directives to conduct inquiries into their wholesale markets for international mobile roaming. Work on this is underway in the European Regulators Group (ERG) with the publication of its remedies document<sup>8</sup> and its September meeting (see the report<sup>9</sup>), the latter attended by the FCC Chairman.

**voice calls**

Our particular concern about the prices charged to consumers from the USA arose from data gathered in the past few weeks. In the first instance for a survey<sup>10</sup> of the prices charged to visitors to the Olympic Games in Greece and in the second instance for data presented in our Voluntary Report to the 30th Meeting of APECTEL in Singapore.<sup>11</sup> That meeting was attended by officials from the International Bureau and from the State Department.

The cost of outbound calls made while roaming in a foreign country is extremely simple, it is usually a flat rate for all calls in a given country regardless of the destination of the call. While this has the advantage of comprehensibility, it can also be extremely expensive. The cheapest calls would normally be those terminating on the visited mobile network or to a fixed network in the same country; calls which should cost only a few cents but which are raised to closer to two dollars or more.

The following are examples of tariffs:

- AT&T Wireless<sup>12</sup>
  - \$1.29 for Western Europe
  - \$1.29, \$1.69 or \$2.29 for Asia (depending on the country)
  - \$0.99 discounted rate, with monthly payment of \$5.99 for twenty countries
- Cingular<sup>13</sup>
  - \$1.29 per minute for Western Europe
  - \$1.99 per minute for Asia

<sup>7</sup> [http://europa.eu.int/comm/competition/antitrust/others/sector\\_inquiries/roaming/](http://europa.eu.int/comm/competition/antitrust/others/sector_inquiries/roaming/)

<sup>8</sup> [http://erg.eu.int/doc/whatsnew/erg\\_0330rev1\\_remedies\\_common\\_position.pdf](http://erg.eu.int/doc/whatsnew/erg_0330rev1_remedies_common_position.pdf)

<sup>9</sup> [http://erg.eu.int/doc/meeting/erg\\_0438\\_erg10conclusions\\_short.pdf](http://erg.eu.int/doc/meeting/erg_0438_erg10conclusions_short.pdf)

<sup>10</sup> <http://www.intug.net/surveys/gsm/olympics/>

<sup>11</sup> [http://www.intug.net/submissions/INTUG\\_APECTEL\\_30.html](http://www.intug.net/submissions/INTUG_APECTEL_30.html)

<sup>12</sup> [http://www.attwireless.com/callinternational/abroad/when\\_abroad\\_freq\\_use.jhtml](http://www.attwireless.com/callinternational/abroad/when_abroad_freq_use.jhtml)

<sup>13</sup> [http://www.cingular.com/shop/roaming\\_gen](http://www.cingular.com/shop/roaming_gen)

- Nextel<sup>14</sup>
  - \$1.29 or 1.99 for Western Europe (depending on the country)
  - \$1.99, 2.99, 3.99 or 5.99 for Asia (depending on the country)
- Sprint PCS<sup>15</sup>
  - \$1.50 for Western Europe and Asia
- T-Mobile<sup>16</sup>
  - \$0.99 per minute for Western Europe
  - \$ 1.49, \$2.99 or \$ 4.99 per minute for Asia (depending on the country)
- Verizon<sup>17</sup>
  - \$1.29 per minute plus applicable long distance rate
  - \$2.49 per minute in Indonesia, Kenya, Maldives and Sri Lanka

When a customer roams to another country, the charge for a call forwarded from the USA is generally the same as the rates listed above. This is considerably more than the cost of a conventional call to a cellphone in the same country.

By comparison, retail prices in Europe are considerably more complicated, with a wide spread for any operator, depending on the whether the customer is corporate, individual or pre-paid and whether the operator is an affiliate.

The data for Figure 1 were collected in early September 2004 and show the prices charged by a number of "home" operators for local calls made by their customers when roaming in Singapore. It indicates that operators in the USA and Mexico have significantly higher charges for local calls than do other non-Singaporean operators. A local non-roaming customer would pay 6 to 12 cents per minute or less for the same call, depending on their tariff.

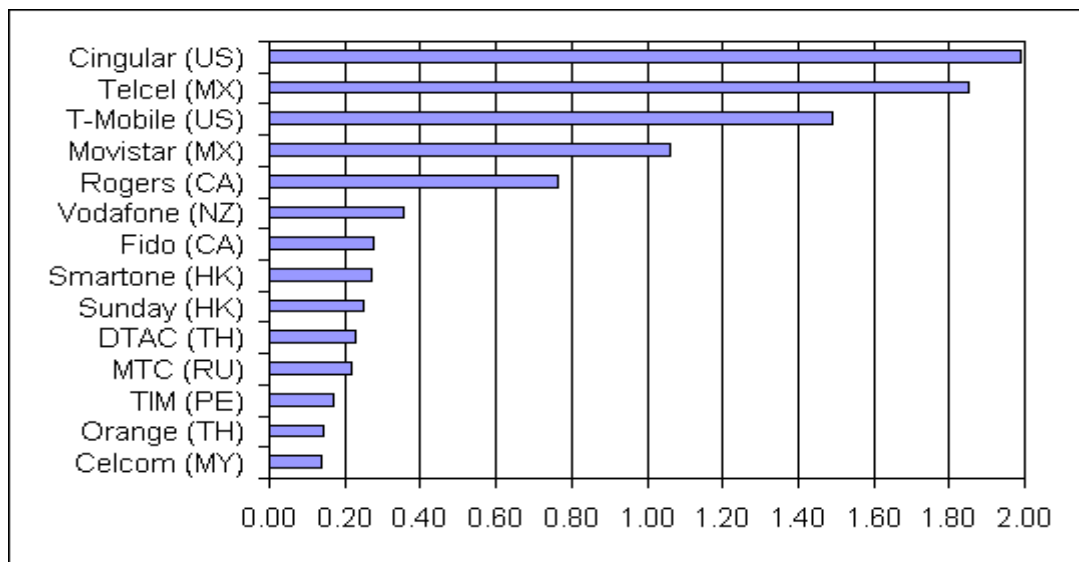
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<sup>14</sup> [http://www.nextel.com/services/worldwide/coverage/country\\_list.shtml](http://www.nextel.com/services/worldwide/coverage/country_list.shtml)

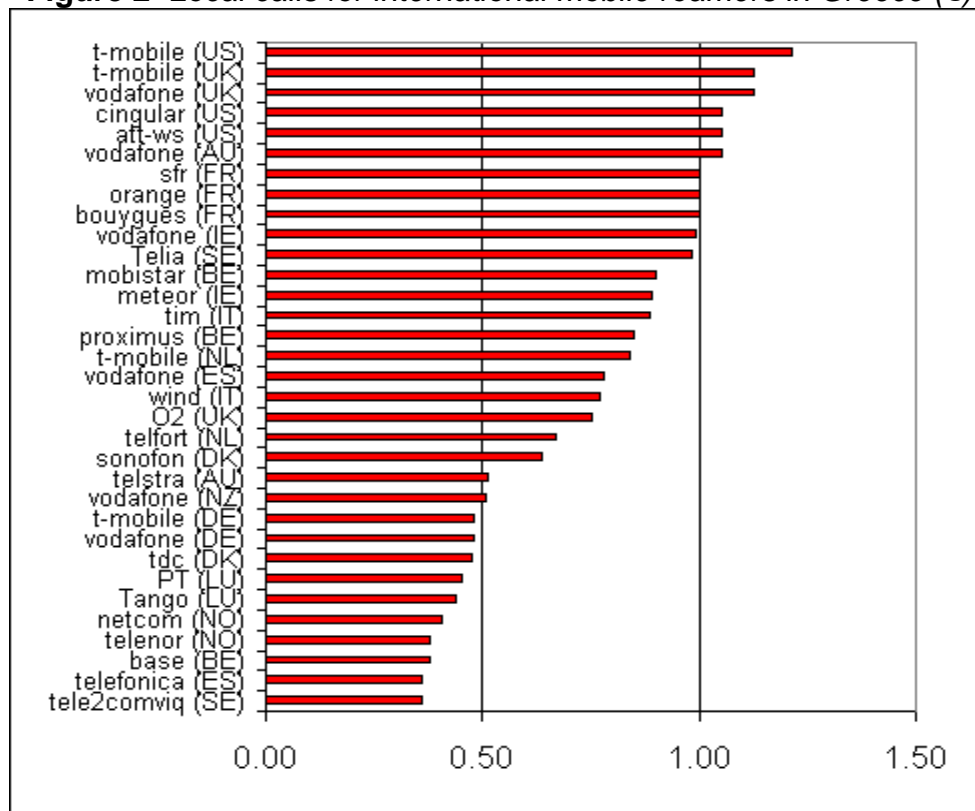
<sup>15</sup> <http://www1.sprintpcs.com/explore/coverage/internationalroaming/IntlWelcome.jsp>

<sup>16</sup> <http://www.t-mobile.com/international/coverage.asp>

<sup>17</sup> <http://www.verizonwireless.com/b2c/mobileoptions/internationalsvcs/globalphone/index.jsp>

**Figure 1** *Local calls for international mobile roamers in Singapore (US\$)*

Pricing data for roamers in Athens for the 2004 Olympic Games are shown in Figure 2, this time in Euros. While the US operators are less conspicuous, they are still at the most expensive level of charges.

**Figure 2** *Local calls for international mobile roamers in Greece (€)*

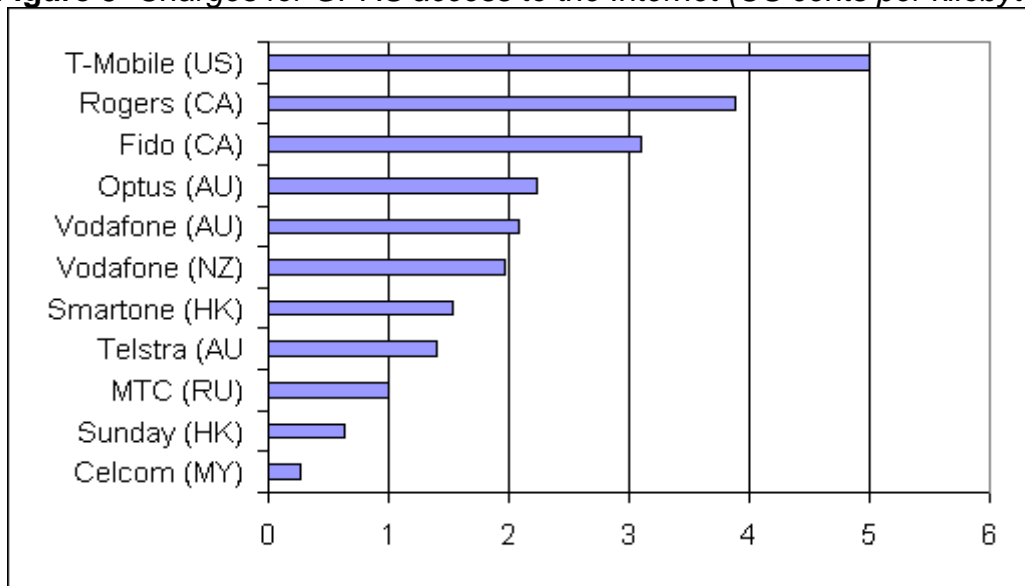
The prices show only one rate for each operator. In the case of many European operators they have a range of retail prices for different types of customers with some even more expensive rates. Pre-paid roamers from the United Kingdom can pay £1.49 per minute.

We do not have access to the wholesale charges, the Inter Operator Tariffs (IOT), that is the price charged by the foreign operator to the US-based operators. Nonetheless, it seems clear that these must be well below the level charged by the US-based operators to their customers. It would seem reasonable to assume that in the case of Figure 1, the wholesale price was not more than 15 cents, suggesting a mark-up of 130 to 150 cents per minute. In the case of Figure 2 the wholesale price may be nearer 35 Eurocents, still leaving a considerable profit margin.

### data traffic

The excessive charges for international mobile roaming are not confined to voice calls, they have been extended to data charges for the use of General Packet Radio Services (GPRS) and Enhanced Data Rates for Global Evolution (EDGE). While customers may have a flat rate plan within the USA, when then travel abroad they must pay for each kilobyte. As figure 3 shows, the prices charged are considerable.

**Figure 3** *Charges for GPRS access to the Internet (US cents per kilobyte)*



Additionally, there is a concern about the usage of kilobyte and Megabyte in the prices. In the first instance, few if any users know how many Megabytes they use or which applications generate the traffic. A second and very serious concern is that the units do not appear to relate to the amount of data generated and received by the customer, but also includes the TCP/IP header data on each packet sent and received, plus any re-sending of such packets. If this is the case, then the prices shown by operators are very difficult to understand and almost impossible to relate to any usage. Instead of being charged for 1 kilobyte of data received, a user may

have to pay from 1.2 to 2.5 kilobytes.

It is possible that such billing arrangements, where the apparent billing unit cannot be directly related to use, do not comply with the Truth in Billing policy.<sup>18</sup> If so, then it would apply to both international data roaming and also to purely domestic tariffs in those cases where the charge was not a flat monthly fee.

**conclusions** In the early days customers tended to overlook the prices of international mobile roaming because of the convenience. However, as the service has become much more widely used and when prices failed to decline, the first complaints were made. At that time operators in one country tended to blame foreign operators for imposing high wholesale prices. It was on this basis and because of possible collusion that the inquiry was begun by the European Commission.

The evidence presented here suggests that whatever abuse might or might not be perpetrated by foreign operators in wholesale markets, domestic US operators are adding significant and possibly excessive profit margins to the foreign wholesale prices. It is particularly noticeable that while domestic roaming charges have ceased to be a significant issue for users within the USA, this has not been the case when they travel abroad, even they roam on networks affiliated to their home operator.

Possible reasons for this might be that there is less competition for international mobile roaming because it is purchased as part of a bundle of services, comprising access, origination and termination of calls, text messaging and value added services. Thus purchasers may be more concerned with the prices of other aspects of the package than with the prices for international mobile roaming. Moreover, the number of operators able to offer international roaming is a subset of the available mobile operators, since some technologies are not easily compatible with those used elsewhere, requiring the purchase of a more expensive dual-mode handset or the renting of a handset when travelling. Together these may have attenuated competition to the point where it allows the operators to impose high charges without fear of a response from competitors.

The operators may be doing nothing more than following sector practices of using international mobile roaming as a cash cow to support higher Average Revenue Per User (ARPU).

Whether the profit margins can be justified or not, it would appear to be appropriate for the FCC to issue a consumer alert on international mobile roaming charges, explaining how to minimise their spending. One approach is to purchase a local pre-paid SIM card, however, heightened security concerns have caused some foreign governments to limit their sale to those possessing local identity cards.

As with mobile termination rates, international mobile roaming charges involve

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<sup>18</sup> <http://www.fcc.gov/cgb/policy/truthinbill.html>

contractual arrangements between several hundred operators. The net cash flows are highly significant and clearly operators endeavour to limit their net payments to others. However, the most significant problem is the very high level of retail charges to users leaving the USA.

**INTUG**

INTUG, the International Telecommunications Users Group (INTUG), is an association of national telecommunications users associations. INTUG was founded in 1974 to act as a single voice for users of telecommunications.

The mission of INTUG is to ensure that users have access to affordable, interoperable telecommunications services and that their voice is heard wherever telecommunications policy is decided. For almost thirty years INTUG has argued for the introduction of competition in telecommunications and that all users must have access to the benefits of such competition.

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